MSO Pittsburgh Y2K Business Continuity and Contingency Plan Exercise
Conducted July 14, 1999

Executive Summary

The Marine Safety Office (MSO) Pittsburgh exercised its Business Continuity and Contingency Plan (BCCP) on 14 July 1999. It was highly successful, reflecting the extensive preparation and hard work of MSO Pittsburgh personnel and all of its partners in establishing the communications network and confirming the ability to communicate and control assets necessary to perform statutory missions. The interaction with other members of the response community and the maritime industry enhanced and verified the ability of MSO Pittsburgh and its community partners to provide an effective, unified response in the event a Year 2000 (Y2K) emergency occurs.

Background

The Port of Pittsburgh is the largest tonnage U.S. inland port with heavy barge traffic and many industrial facilities. MSO Pittsburgh is responsible for the safe operation of vessels and shoreside facilities on the Ohio, Monongahela, and Allegheny Rivers. Due to the large number of locks and dams (23) in the Captain of the Port Pittsburgh zone, MSO personnel frequently liaison with the U.S. Army Corp of Engineers (USACE) on a host of waterway management issues. The Pittsburgh zone covers three states, thus effective communications are crucial. MSO Pittsburgh is located in a high rise office building in downtown Pittsburgh, which may be inaccessible in the event of a Y2K related incident. To mitigate risks associated with the location during the millennium roll-over, MSO Pittsburgh will relocate to Support Detachment (SSD) Sewickley, a United States Coast Guard (USCG) facility on the Ohio River.

Step 1 – Establish Major Objectives

The major objective for the exercise was to demonstrate MSO Pittsburgh's ability to exercise its statutory missions should a Y2K emergency occur. Additional objectives included:

- ***Exercise MSO Pittsburgh BCCP*** – The exercise was designed to evaluate the continuity and contingency plan established by MSO Pittsburgh. Lessons learned from the event will be used to revise the plan as necessary.

- ***Exercise Command Structure for Y2K*** – An incident command post will be established for each of the Y2K critical dates. The exercise was designed to evaluate and refine procedures associated with this type of crisis management command structure within the maritime environment.

- ***Test Communications Capabilities*** – The exercise was designed to test the communications capabilities within the MSO Pittsburgh Area of Responsibility (AOR). Secondary and tertiary means of communications must be evaluated for their ability to provide backup to primary communications. In addition, information on how to contact maritime partners must be documented and readily available for Y2K critical dates.

- ***Establish Interagency Liaisons*** – The MSO Pittsburgh has worked with numerous port partners in government and industry to ensure Y2K readiness for Y2K critical dates. The exercise was designed to establish interagency liaisons within the response community.

Step 2 – Identify Exercise Participants

Participants are listed in the table below.

Participant Type	Participant
Port Stakeholder	
	AEP (Pool Coordinator)
	Gateway Clipper Fleet
	PPG Facility (Narrium, WV)
	River Terminal Operators
	Weavertown Environmental Group
State/Local Government	
	City of Pittsburgh Emergency Operations Center (EOC)
	Monongehela River Communication Network
	Pittsburgh River Rescue
	Three Rivers Pollution Response Council
United States Coast Guard	
	Marine Safety Office (MSO) Pittsburgh
	Group (GRU) Ohio Valley
	Support Detachment (SSD) Sewickley
	USCG Cutter Osage
	USCG Auxiliary Divisions 7 and 9
Other Federal Agencies	
	U.S. Army Corps of Engineers, Pittsburgh District
	USACE Lockmasters (23 locks and dams)

Table 1 – Pittsburgh Exercise Participants

Step 3 – Develop Exercise Scenarios

The Pittsburgh exercise was designed to evaluate the effectiveness of response units in the event that multiple Y2K related failures occurred simultaneously on December 31, 1999. The Pittsburgh exercise consisted of two major scenarios:

- ***Telecommunications Failures*** – The scenario simulated a failure of telephone lines throughout the Pittsburgh area. The USCG must verify its ability to track vessel movements and respond to mission requirements. Backup communications must be used to contact vessels and coordinate with local response units. To prepare for this scenario, active, reserve, and auxiliary personnel from MSO Pittsburgh coordinated a test of communication "dead zones" for VHF-FM radio communications. Mobile units with radios were then stationed within the dead zones to act as a relay link between VHF sites. This scenario was a tabletop exercise with emphasis on the MSO's ability to communicate with Coast Guard assets,

USACE locks and dams, the local response community, and the maritime industry personnel. Although failures were simulated, all radio communications were actual.

- ***Civil Disturbances*** – This scenario simulated power outages that result in blackouts and brown outs throughout the city. Traffic lights malfunction and landline and cellular telephones are not operational. Traffic to and from a major event at Point State Park is gridlocked. Fighting begins at the park and some individuals are injured. Response units cannot reach the scene. This scenario was a tabletop exercise that involved participants from the local response community and the maritime community.

Step 4 – Conduct Exercise Activities

This section presents the primary Pittsburgh exercise activities, by scenario. Note that Y2K related system and equipment casualties described in the scenarios were simulated.

- ***Telecommunications Failures***
  - A barge moored at the PPG facility experienced a simulated valve failure which caused the release of 600 tons of chlorine. PPG personnel discovered that telephone lines were out so they contacted emergency response personnel using alternate communications.

  - The Gateway Clipper vessel, M/V Majestic, experienced a simulated fire started by passengers during a party cruise. The fire spread quickly causing passengers to fall or jump overboard. The onboard chaos prevented vessel personnel from containing the blaze and they contacted emergency response units for assistance via radio.

  - USCG personnel experienced the simulated failure of telephone lines and were uncertain whether VHF-FM high sites were operational. Command Post personnel needed to quickly verify communications capabilities to ensure their ability to meet mission requirements and respond to emergency situations. Radio checks were made with three separate locations.

- ***Civil Disturbances***
  - The City of Pittsburgh Emergency Operations Center (EOC) contacted SSD Sewickley by radio to advise the USCG that Pittsburgh River Rescue personnel were called ashore to assist in crowd control and civil disturbances. The Pittsburgh EOC requested that the USCG stay in the area to assume control of the waterways.

  - The City of Pittsburgh EOC contacted the USCG and requested that rivers be closed and vessels cleared from the areas experiencing civil disturbances. The Pittsburgh EOC did not have the personnel or equipment to assist.

  - The City of Pittsburgh EOC contacted the USCG and advised them that numerous fights had broken out at Point State Park and due to traffic gridlock, personnel could not get to the park to respond. Pittsburgh EOC requested that the USCG go ashore at the Point to assist in maintaining order.

- The fighting at the park resulted in numerous injuries. Fire and ambulance personnel could not reach the park, again because of the traffic conditions. Pittsburgh EOC contacted the USCG and requested that injured individuals be located and evacuated by boat to an area where Emergency Medical Service (EMS) personnel could treat and transport them as needed.

- The Pittsburgh EOC requested that USCG personnel patrol Mon Wharves, Gateway Clipper Moorings, and Station Square Moorings to prevent looting and vandalism.

Step 5 – Conduct Post Exercise Analysis

The following table summarizes significant observations, lessons learned, and proposed changes to contingency plans, policies, procedures, and interfaces. This information is being shared with ship operators, port authorities, terminal operators, and local area infrastructure to improve emergency response capabilities.

No.	Observation/Explanation	Lesson Learned	Recommended Action
1	The communications network verified that MSO Pittsburgh's Y2K BCCP provided adequate ability to communicate throughout its zone.	The need to switch to different frequencies to communicate prevented the CG Command Center from being contacted immediately by any agency.	A second maritime radio should remain on channel 16 and be monitored at all times. The necessary equipment currently exists in an office adjacent to the Command Center and establishing a radio watch at that location will meet this requirement. All mobile CG assets will use currently established working frequencies.
2	Telephone equipment was inadequate. The Command Center only had one phone line.	The single phone line made it difficult to conduct operations. If an outgoing call was in progress, outside agencies were unable to contact the Command Center.	To mitigate this problem, the Command Center should utilize the two additional phone lines in the adjacent office currently designated for the CGC Osage. For this to be effective, all phone numbers would need to be published or the phones connected in a rollover mode. Adequate cellular phones should be available to enhance communication capabilities and expand coverage area.
3	Access to operational telephone exchanges will be limited following a Y2K event due to anticipated expanded use.	Proprietary phone lines should be established for both landlines and cellular lines to ensure access to operational communications systems	Investigate the acquisition of proprietary phone lines.

No.	Observation/Explanation	Lesson Learned	Recommended Action
4	Radio hardware in the Command Center is different from the radios currently in use by marine personnel.	The difference in radios created initial confusion in establishing communications with response agencies.	CG personnel should be trained on this new equipment and its idiosyncrasies.
5	MSO Pittsburgh's current Communications Plan addresses the many issues involved in a Y2K related incident.	The exercise provided an opportunity to identify potential shortfalls in the plan along with potential solutions.	Make adjustments to the Communications Plan, including adjustments to communications hardware.
6	The Electronic Support Unit (ESU) St. Louis has tested the radio antenna at SSD Sewickley.	The antenna is losing power and requires repairs and further testing.	Conduct repairs and retest to ensure that radio communications capabilities are optimal prior to Y2K critical dates.
7	Local response authorities were overwhelmed with shoreside activities and diverted afloat assets to shore. USCG personnel were requested to evacuate pleasure crafts and conduct law enforcement activities, including evacuating crowds, responding to disturbances, and patrolling moorings for looting and vandalism.	USCG personnel do not have the legal authority to enforce local laws, or the equipment and training to perform those missions. This even prevents USCG personnel from effectively enforcing safety and security zones as required by USCG policy and federal law.	USCG personnel should receive all training and equipment necessary to adequately conduct its statutory mission and protect its personnel. This should include training, certification, and access to USCG approved weapons.
8	Local law enforcement and response agencies have an unrealistic view of USCG law enforcement authorities and capabilities.	A liaison should be established with these agencies to discuss and educate them in these areas and enable them to update their plans to reflect realistic USCG support. In turn, these agencies can inform the USCG of their support capabilities.	Establish liaisons between various maritime partners and emergency response agencies to better understand support roles and capabilities.

Table 2 – Pittsburgh Exercise Results

For More Information

Contact the USCG Representatives

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